

This listing of claims replaces all prior versions, and listings of claims in the instant application:

Listing of Claims:

1. (Currently amended) A system for synchronous collaborative shell integrated instant messaging comprising:

a network;

an instant messaging (IM) server computer system coupled to the network, the IM server computer system comprising:

a collaborative shell program, the collaborative shell program ~~for~~ linking ~~the~~ a command line interface of a command line interface (CLI) shell program on one or more user computer systems to an instant messaging/chat capability of an IM server application to permit a user of ~~the~~ at least one user computer system to issue commands to at least one target computer system on the network via a chat window displayed to the user on the at least one user computer system, and

an instant messaging (IM) server application coupled with the collaborative shell program;  
at least one user computer system coupled to the network, the at least one user computer system comprising:

an instant messaging (IM) client application, and

a the command line interface (CLI) shell program, ~~said the~~ the CLI shell program further including a command line interface; and

at least one target computer system coupled to the network.

2. (Original) The system of Claim 1, wherein the at least one user computer system further comprises:

- a processor;
- an operating system;
- an input device; and
- a display.

3. (Currently amended) A method for synchronous collaborative shell integrated instant messaging comprising:

- receiving text from a user computer system over a network at a collaborative shell program on an instant messaging (IM) server, the collaborative shell program ~~for~~ linking a command line interface of a command line interface (CLI) shell program on the user computer system to an instant messaging/chat capability of an IM server application on the IM server to permit ~~the~~ a user of the user computer system to issue commands to at least one target computer system on the network via a chat window displayed to the user on the user computer system;

- determining whether the text includes a command; and

- wherein upon a determination the text includes a command, sending the command to at least one target computer system, and

- wherein upon a determination that the text does not include a command, sending the text to the instant messaging (IM) server application.

4. (Original) The method of Claim 3, further comprising:

- receiving a response from the at least one target computer system; and

automatically sending the response to the user computer system.

5. (Currently amended) A method for synchronous collaborative shell integrated instant messaging comprising:

receiving text over a network from a user computer system, the text including one or more characters;

intercepting the text by a collaborative shell program on an instant messaging (IM) server, the collaborative shell program ~~for~~ linking a command line interface of a command line interface (CLI) shell program on the user computer system to an instant messaging/chat capability of an IM server application on the IM server to permit ~~the~~ a user of the user computer system to issue commands to at least one target computer system on the network via a chat window displayed to the user on the user computer system;

determining whether a first character of the text is a predefined command character; and

upon a determination that the first character of the text is the predefined command character, sending the subsequent characters over the network to at least one target computer system.

6. (Previously amended) The method of Claim 5, further comprising:

wherein upon a determination that the first character of the text is not the predefined command character, sending the text to the instant messaging (IM) server application.

7. (Original) The method of Claim 5, further comprising:

receiving a response from the at least one target computer system over the network; and  
automatically sending the response over the network to the user computer system.

8. (Original) The method of Claim 5, wherein the predefined command character is a character not assigned a functionality by a command line interface (CLI) shell program utilized by the user computer system.

9. (Original) The method of Claim 5, wherein the predefined command character is an asterisk.

10. (Original) The method of Claim 5, wherein the subsequent characters are a command.

11. (Original) The method of Claim 7, wherein the response is sent as an instant message.

12. (Original) The method of Claim 5, further comprising:

receiving a selection of the at least one target computer system from the user computer system over the network.

13. (Original) The method of Claim 12, wherein the selection of the at least one target computer system is input on a first graphical user interface displayed on the user computer system.

14. (Original) The method of Claim 13, wherein the first graphical user interface is a buddy list.

15. (Original) The method of Claim 13, wherein the first graphical user interface is displayed by an instant messaging (IM) client application on the user computer system.

16. (Original) The method of Claim 5, wherein the text is input to a second graphical user interface displayed on the user computer system.

17. (Original) The method of Claim 16, wherein the second graphical user interface is a chat window.

18. (Original) The method of Claim 16, wherein the second graphical user interface is displayed by an instant messaging (IM) client application on the user computer system.

19. (Currently amended) A method for synchronous collaborative shell integrated instant messaging comprising:

establishing a session connecting one or more user computer systems and one or more target computer systems over a network at a collaborative shell program on an instant messaging (IM) server, the collaborative shell program ~~for~~ linking a command line interface of a command line interface (CLI) shell program on the one or more user computer systems to an instant messaging/chat capability of an IM server application on the IM server to permit users of the one or more user computer systems to issue commands to the one or more target computer systems on the network via a chat window displayed to the users on the one or more user computer systems;

receiving text from at least one of the one or more user computer systems;  
determining whether the text includes a command;  
and  
upon a determination that the text includes the command, sending the command to at least one of the one or more target computer systems in the session.

20. (Original) The method of Claim 19, further comprising:

receiving a response over the network returned from the one or more target computer systems; and  
automatically sending the response over the network to the one or more user computer systems in the session.

21. (Original) The method of Claim 19, wherein the determining whether the text includes a command comprises:

intercepting the text by a collaborative shell program;  
determining whether a first character of the text is a predefined command character; and  
upon a determination that the first character of the text is the predefined command character, determining the text includes a command.

22. (Currently amended) A graphical user interface for display to a user on a display device of a computer system coupled to a network, ~~said~~ the graphical user interface comprising:

at least one selectable identifier of a target computer system coupled to a network, ~~said~~ the selectable identifier identifying ~~an~~ a target computer system ~~for connection~~ connectable in a

synchronous collaborative shell integrated instant messaging session; and

at least one selectable identifier of a program selected from the group consisting of a script, a bot, and an agent, ~~said~~ the selectable identifier identifying a program ~~for execution~~ executable in the synchronous collaborative shell integrated instant messaging session.

23. (Previously amended) The graphical user interface of Claim 22, further comprising:

a status indicator associated with the at least one selectable identifier of a target computer system coupled to the network.

24. (Cancelled)

25. (Original) The graphical user interface of Claim 22, further comprising:

at least one selectable identifier of a user having access to the network.

26. (Cancelled)

27. (Previously amended) The graphical user interface of Claim 22, further comprising:

a status indicator associated with the at least one selectable identifier of a program selected from the group consisting of a script, a bot, and an agent.

28. (Cancelled)

29. (Cancelled)

30. (Currently amended) A method for synchronous collaborative shell integrated instant messaging comprising:

- receiving an event at an instant messaging (IM) server computer system on a network to open a session connection to an instant messaging (IM) client application on at least a first user computer system on the network;

- opening a session connection to the IM client application on the at least a first user computer system;

- starting a session;

- receiving an event to open one or more additional connections within the session to one or more target computer systems on the network;

- opening the one or more additional connections to each of the one or more target computer systems;

- receiving text input from the at least a first user computer system and the one or more target computer systems;

- intercepting the text at the IM server computer system by a collaborative shell program, the collaborative shell program ~~for~~ linking a command line interface of a command line interface (CLI) shell program on the first user computer system to an instant messaging/chat capability of an IM server application on the IM server to permit the user of the first user computer system to issue commands to at least one target computer system on the network via a chat window displayed to ~~the~~ a user on the first user computer system, wherein the text includes one or more characters;

- determining whether the text includes a predefined command character;



upon a determination that the text includes the predefined command character, sending the remaining characters to the one or more target computer systems; and

upon a determination that the first character of the text is not the predefined command character, sending the text to an IM server application utilized by the IM server computer system.

31. (Original) The method of Claim 30, further comprising:

authenticating that a user of the at least a first user computer system has access rights to the one or more target computer systems on the network.

32. (Currently amended) The method of Claim 30, further comprising:

receiving a response returned from the one or more target computer systems at the IM server computer system; and

automatically sending the response from the one or more target computer systems to the at least ~~one~~ a first user computer system.

33. (Currently amended) A system for synchronous collaborative shell integrated instant messaging comprising:

a network;

one or more target computer systems coupled to the network;

one or more user computer systems coupled to the network, each of the one or more user computer systems comprising:

an operating system,

a command line interface (CLI) shell program, the CLI shell program including a command line interface (CLI), and  
an instant messaging (IM) client application; and  
an instant messaging (IM) server computer system coupled to the network, the IM server computer system comprising:

an instant messaging (IM) server application, the IM server application including IM functionalities, and

a means for linking the command line interface (CLI) of the CLI shell program on ~~the~~ a user computer system with the instant messaging (IM) functionalities of the IM server application on the IM server to permit a user of the user computer system to issue commands to at least one target computer system on the network via a chat window displayed to the user on the user computer system.

34. (Original) The system of Claim 33, wherein the IM functionalities of the IM server application comprise:  
instant messaging functionalities; and  
chat functionalities.

35. (Original) The system of Claim 33, wherein the means for linking the command line interface of the CLI shell program with the IM functionalities of the IM server application comprises:

means for authenticating each of the one or more users on the one or more user computer systems to each of the one or more target computer systems over the network.

36. (Currently amended) A method for monitoring status information over a network by a collaborative shell program on an instant messaging (IM) server computer system, the IM server computer system including an IM server application, the method comprising:

periodically querying from a collaborative shell program on an instant messaging (IM) server computer system one or more target computer systems on a network for status information, the collaborative shell program ~~for~~ linking a command line interface of a command line interface (CLI) shell program on ~~the~~ one or more user computer systems to an instant messaging/chat capability of an IM server application on an IM server to permit users of the one or more user computer systems to issue commands to the one or more target computer systems on the network via a chat window displayed to the users on the one or more user computer systems;

receiving the status information returned from the one or more target computer systems; and

providing a user at a user computer system on the network with an indication of the status of the one or more target computer systems in a graphical user interface displayed on the user computer system by an instant messaging (IM) client application.

37. (Original) The method of Claim 36, wherein the indication of the status of the one or more target computer systems is provided by a status indicator displayed in the graphical user interface and associated with each of the one or more target computer systems.

38. (Currently amended) A method for monitoring status information over a network by a collaborative shell

program on an instant messaging (IM) server computer system, ~~said~~ the IM server computer system including an IM server application comprising:

periodically querying from a collaborative shell program on an instant messaging (IM) server computer system at least one program selected from the group consisting of a script, a bot, and an agent for status information, the collaborative shell program ~~for~~ linking a command line interface of a command line interface (CLI) shell program on ~~the~~ one or more user computer systems to an instant messaging/chat capability of an IM server application on an IM server to permit users of the one or more user computer systems to issue commands to the one or more target computer systems on the network via a chat window displayed to the users on the one or more user computer systems;

receiving the status information returned from the at least one program; and

providing a user at a user computer system on the network with an indication of the status of the at least one program in a graphical user interface displayed on the user computer system by an instant messaging (IM) client application.

39. (Original) The method of Claim 38, wherein the indication of the status of the at least one program is provided by a status indicator displayed in the graphical user interface and associated with the at least one program.